FRONT ELEVATION

A1

#4 AT 9" IN BEAM SEATS SPACE AT 1'-6" BTWN. SEATS.

2-#4

'A'

1¾" MIN.

1'-0" MIN.

VERT. CONST. JT. CLEAR BRG. SEAT BY 3" MIN.

#8 BARS

6'

'A' BARS

#5 AT 1'-0"

#5 AT 1'-0"

FOOTING STEEL AT 1'-0"

'D'

'D'

KEYED CONST. JT. FORMED BY BEVELED 2" x 8"

A1

B.F. REINF.

VERT. CONST. JT. - OPT. IN FTG. PLACE TO CLEAR PILES 9" MIN.

F.F. REINF.

VERT. CONST. JOINT

¾" V-GROOVE

1½"

CL BRG.

PILE REACTIONS PER FOOT IN KIPS

$P_{DES} = 1.3(PDL + 5/3 \ PLL)$
$P = PDL + PLL$

P_{DES} k/FT.	'A' BAR SIZE	FOOTING STEEL SIZE	FOOTING DEPTH 'D'
10	#6	#5	2'-0"
16	#6	#6	2'-3"
22	#7	#5	2'-6"
28	#7	#5	2'-9"
34	#7	#5	3'-0"
40	#8	#5	3'-3"
46	#8	#5	3'-3"
52	#9	#5	3'-6"

FRONT ROW = P(.44+DC/5.5)+10.1

BACK ROW = P(.56-DC/5.5)+7.6

SECTION A1

3-#5 BARS MAKE BARS ± 8'-0" LONG LAP 1'-0" (COATED)

8" 1'-0"

1'-0" MIN. 1'-10" MAX.

CL OF BEARING

2½" CL.

SEE STD. 28.3 FOR DETAILS USED W/ MODULAR JT.

DC

#5 BARS AT 1'-0" (COATED)

#4 BARS (COATED)

1'-3" MIN.

#5 BARS AT 1'-0"

10'-0" MAX.

17'-0" MAXIMUM

1'-6" MAX.

1'-6"

#6 DOWELS (5 IN EACH WING AREA)

9-#8 BARS

2-#6 BARS

6"

2'-0"

SEE PIPE UNDERDRAIN DETAIL

CLASS 'C'

2:1 SLOPE

#5 AT 1'-6"

#5 BARS AT 1'-0"

4-#8 BARS

4'-6"

'D'

6" TYP.

'A' BARS AT 1'-0" SEE TABLE.

1'-6"

5'-6"

BATTER

1 : 4

#5 BARS

FOOTING STEEL @ 1'-0"

1'-3"   5'-6"   1'-3"

8'-0"

6'-6" MIN.

SPREAD FTG.

NOTE: ALL LONGIT. BARS NOT LABELED IN SECTION 'A1' ARE #4 BARS.

PIPE UNDERDRAIN DETAIL

GEOTEXTILE FABRIC TYPE, DF WITH 1'-6" OVERLAP.

SIZE 1 COARSE AGGREGATE.

PIPE UNDERDRAIN 6" Ø. MIN. SLOPE = .003% MIN. CAP UPPER END.

1'-6"

1'-6"

PLAN

WING LENGTH TO 26'-6"

10'-6"   8'-6"   1'-3"

3'-3"

REF. LINE

CL OF ROADWAY

SKEW ANGLE

5-#6 DOWELS (TYP.)

TEMP. HOLD DOWNS (WHERE REQ'D.)

9-#8 BARS

BATTER PILE

8'-6"

3'-3"

10'-6"

3'-3"

4'-6"

WING LENGTH OVER 26'-6" TO 29'-6"

DETAIL FOR SIDEWALK ONLY

CL OF BEARING

1'-3"

10"

SIDEWALK

SLOPE 1" BETWEEN BEAM SEATS

① ② ③ ④

CL OF GIRDERS

SQUARE OFF END OF FOOTING AS SHOWN WHEN ABUTMENT IS SKEWED OVER 20°.

DESIGNER NOTES

IN "FRONT ELEVATION" VIEW, GIVE ELEVATION OF ALL BEARING AREAS AND ELEVATION AT BOTTOM OF RAIL PARAPETS AT EACH END OF WINGS. ALL DIMENSIONS AND ELEVATIONS ARE TAKEN AT FRONT FACE OF BACKWALL.

PILING SPACING IN ABUTMENT BODY SHALL BE 8'-0" MAX. FOR FRONT ROW & 8'-0" MAX. FOR BACK ROW FOR ALL TYPES OF PILING.

LAP LENGTH FOR HORIZONTAL BARS SHALL BE BASED ON A "CLASS C" TOP TENSION LAP SPLICE.

PARAPET NOT SHOWN IN PLAN VIEW.

LEGEND

◑ OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". USE ¾" "V" GROOVE ON F.F. OF WINGWALL ONLY. IF JOINT IS NOT USED WATERPROOFING IS NOT REQ'D.

△ THIS STEEL IS REQUIRED ONLY IF DIMENSION "A" EXCEEDS 4".

▮▬ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS ON BACKFACE ABOVE FOOTING.

✿ KEYED CONST. JOINT FORMED BY A BEVELED 2" x 6".

◪ POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

⊠ WHEN BODY SECTION IS MORE THAN ± 50'-0" LONG PROVIDE VERTICAL CONST. JOINT. RUN BAR STEEL THRU JOINT.

ABUTMENT A4 PILE FOOTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED:

DATE: 1-02